RP-BPU80

Battery Pack Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Important Safety Instructions
• Keep these instructions.
• Heed all warnings.
• Follow all instructions.
• Do not use this apparatus near water.
• Clean only with dry cloth.
• Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
• Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
• Only use attachments/accessories specified by the manufacturer. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
• Unplug this apparatus during lightning storms or when unused for long periods of time.
• Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Overview/Features
The RP-BPU80 Battery Pack uses Lithium-ion batteries.
Use the RP-BPU80 Battery Pack only with equipment whose Operation Manual/Operating Instructions recommends its use.

The features of the RP-BPU80 are as follows:
• The battery pack can be recharged before being fully exhausted.
• Remaining capacity is indicated by a four-step LED display (more than 80%, 60%, 40%, 20%) when you press the Check button.
• Remaining capacity is indicated on LED display when you press the Check button.

Caution On charging
• The battery pack can be charged within a temperature range of 0°C to 40°C (32°F to 104°F). However, we recommend charging within a temperature range of 10°C to 30°C (50°F to 86°F) to ensure optimum battery performance.
• The battery pack discharges naturally over time. To prolong the life of the product, it is recommended that you fully charge the battery pack before using it. For details on the charging procedure, refer to the Operation Manual/Operating Instructions supplied with the battery charger.
• The battery pack may become warm in use or while being charged. This is normal.

Caution On use
• Never short-circuit the battery pack terminals.
• Never attempt to open the battery pack.
• Avoid mechanical shock.
• Please consult the store where you purchased this battery pack or your sales representative before using the battery pack in a product whose Operation Manual/Operating Instructions does not explicitly state that the battery pack can be used, or before using the battery pack in conjunction with another power supply. In appropriate use of the battery pack may result in unit misoperation.
• The internal impedance of the battery pack increases as the temperature drops to 5°C (41°F) or below. This may result in a shorter operating time or the failure of the component to which it is connected to turn on. This phenomenon occurs more frequently in battery packs that have been charged many times than in new ones.
• The performance and operating time of the battery may drop under cold conditions. When this happens, do the following to extend the operating time of the battery pack:
- Keep the battery pack warm and attach it to the component right before use.
- Charge the battery pack only with the charger dedicated to the RP-BPU80 within a temperature range of 10°C to 30°C (50°F to 86°F).
• Large discharge amount may expedite deterioration of battery pack's internal cells. To prevent this, use the RP-BPU80 with discharger amount of about 3 A or less.
• The maximum discharge amount is 5 A for the RP-BPU80 at 23°C (73°F). Continuous use at levels beyond the maximum discharge level may cause the protection circuit to shut off the current to protect the internal cells.
• A protection circuit will shut off the current to protect the battery pack's internal cells under the following conditions:

To the purchasers of the RP-BPU80
The RP-BPU80 Lithium-ion Battery Pack has a rated capacity of less than 100 Wh. It can thus be transported as a non-hazardous lithium-ion battery. Related laws and regulations are, however, subject to change. For detailed conditions regarding the transport of battery packs, please consult your respective air transport company.
-When an excessive current flow is caused by overloading or short circuited terminals
- When the voltage drops to 11 V or lower and results in the cessation of current output.
• Once the protection circuit has tripped, the battery pack will not return to normal automatically. To cancel the effect of the protection circuit, you must charge the battery pack with charger dedicated to the lithium-ion battery packs.

Caution On storage
• Never expose the battery pack to rain or moisture.
• Keep away from children.
• Never expose the battery pack to temperatures above 60°C (140°F). Store the battery pack in dry place at temperatures between 0°C to 23°C (32°F to 73°F).
• If the battery pack is to be stored for a short period (approximately more than 24 hours and a month or less), discharge the battery pack to 90% of its full capacity to prevent deterioration of battery pack's internal cells.
• When storing the battery pack for an extended period (more than a month),
• it is recommended that you discharge the battery pack to about 50% of its full capacity. (The two LCDs light up green at this time and 02:00h shown on timer .) While the battery pack is stored, charge it until the capacity reaches 50% once in 6 months.
• If the battery pack terminals become soiled, clean them with a soft cloth.

WARNING
• Batteries shall not be exposed to excessive heat such as sunshine. fire or the like.

Battery life
• Battery life may be shortened due to storage or operation in high temperatures, storage with its full capacity, and frequent use.
• Renew the battery pack when the operating time with a completely charged battery pack becomes noticeably short or all LEDs flash green because the self-diagnostics function has detected the end of battery life. If a battery pack is deteriorated, all LEDs may not light when the CHECK button is pressed just after charging is completed.

Self-diagnostic function
When an abnormality is detected, all the LEDs flash in green. If this happens, stop using the battery pack immediately. Once the LEDs start flashing, the battery pack cannot be recharged

SPECIFICATION

Battery type:	Lithium-ion rechargeable battery
Maximum voltage:	16.4 V DC
Nominal voltage:	14.4 V DC
Capacity RP-BPU80:	74.88 Wh
Charging time:	approx. 200 minutes
Operating temperature:	–20°C to +45°C (–4°F to +113°F)
Dimensions (w/h/d)	41.5 × 82.5 × 69.7 mm

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For the customers in Europe

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community.
Compliance with this directive implies conformity to the following

European standards:
• EN55103-1: Electromagnetic Interference (Emission)
• EN55103-2: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environments:
E1 (residential),
E2 (commercial and light industrial),
E3 (urban outdoors),
E4 (controlled EMC environment, ex. TV studio).

To the purchasers of the RP-BPU80
The RP-BPU80 Lithium-ion Battery Pack has a rated capacity of less than 100 Wh. It can thus be transported as a non-hazardous lithium-ion battery. Related laws and regulations are, however, subject to change. For detailed conditions regarding the transport of battery packs, please consult your respective air transport company.

For the customers in the U.S.A. and Canada
RECYCLING LITHIUM-ION BATTERIES
Lithium-Ion batteries are recyclable.
You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest you. For more information regarding recycling of rechargeable batteries, call toll free 1-800-822-8837, or visit http://www.rbrc.org

Caution: *Do not handle damaged or leaking Lithium-Ion batteries*

For the customers in Canada
This Class B digital apparatus complies with Canadian ICES-003.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined byturning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note
Always verify that the unit is operating properly before use.
REDPRO WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER

RP-BPU80

Info Lithium-Ion Battery Pack

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